Teaching the Millennial Intelligence Analyst

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Abstract

This paper examines the conclusions of researchers regarding the millennial generation and their unique challenges as students and intelligence analysts (IAs), and determines that a carefully crafted framework of coursework can be correlated and a curriculum built to the core competencies of ICD 610, as well as take into account the unique variables of millennial intelligence analysts and the needs of the intelligence community. By examining the paradigm shifts of the intelligence community, the demographic of the millennial population and current and future educational trends, this paper argues that teaching methods and competency coursework must be adapted and designed to meet millennials’ specific learning styles. Unless coursework is designed for the needs of this population, millennial IAs will not be able to build on their present skills or enhance their expertise. Government, education institutions and contractors must examine how they will authentically assess IA learning to meet the ICD 610 skill set. By readapting intelligence curricula, building in clear assessment, flipping the classroom as well as mapping learning outcomes back to ICD 610, a concrete framework can be provided for delivering to the government excellent service through measurable skill training education.

Keywords: intelligence education, intelligence collection, intelligence training, tradecraft, millennials.

Resumen

Este documento examina las conclusiones de los investigadores que investigan la generación milenial y sus retos únicos como estudiantes y analistas de inteligencia (IAs), y determina que un marco de estudios cuidadosamente diseñado puede estar relacionado con

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un currículum hecho con las competencias básicas de ICD 610, así como tomar en cuenta las variables únicas de los analistas de inteligencia de la generación milenial y las necesidades de la comunidad de inteligencia. Al examinar estos cambios de paradigma de la comunidad de inteligencia, la demografía de la población milenial y las tendencias educativas futuras, este artículo argumenta que los métodos de enseñanza y contenido para enseñar las competencias debe ser adaptado y designado para concordar con los estilos particulares de aprendizaje de la generación milenial. A menos que las clases estén diseñadas para las necesidades de esta población, los analistas de inteligencia de la generación milenial no podrán continuar desarrollando sus habilidades o mejorando su experiencia. El gobierno, las instituciones educativas y los contratistas deben examinar cómo van a evaluar auténticamente el aprendizaje de los analistas de inteligencia para aprender las habilidades de ICD 610. Al readaptar el currículum e incluir una evaluación clara, cambiando los salones de clase y también esquematizar los resultados del aprendizaje de vuelta a ICD 610, un marco concreto puede ser proporcionado al servicio excelente del gobierno a través de la educación de entrenamiento de habilidades medibles.

Palabras clave: educación de inteligencia, recopilación de inteligencia, entrenamiento de inteligencia, oficio, generación milenial

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摘要

本文检验了情报研究者对千禧一代和后者作为学生及情报分析师（intelligence analysts，简称IAs）所面临的独特挑战得出的结果；同时确定了一项严密制作的课程作业框架，该框架和美国情报界第610号指令“情报界工作人员胜任能力目录”（简称ICD 610）中的核心能力素质（core competencies）相联系，同时还会将千禧一代IAs特有的可变因素以及情报界的需求考虑在内。通过检查有关情报界、千禧一代人口统计数据、现下和未来教育趋势的范式转变，本文主张，情报教学方法和能力课程作业必须作出调整，以符合千禧一代的特定学习方式。如果课程作业没有按照千禧一代的需求进行设计，则这一代的IAs将不能获得现有技能，或是提高其专业水平。政府、教育机构和承包商必须检查各自将如何真正评估IA为达到ICD610技能所付出的学习情况。通过重新调整情报课
Introduction

Increasingly, in a highly competitive market, employers want to be able to confirm that employees meet a baseline of core competencies. In the twenty-first century both the education community and the intelligence community have been forced to evaluate objectives, assessments, and outcomes especially when it comes to productivity of students or employees; the twenty-first century is an accountability climate and bureaucracies have found that outlining core competencies provides a baseline of expected proficiency. Just like academia, the intelligence community must transmit and preserve the wisdom developed in the past while anticipating future anticipated knowledge, skills, and behaviors. The transmission of past culture is an easier task than forecasting the future with a crystal ball and as a result students and intelligence analysts may not be prepared to deal with the requirements of a future society based on a changing paradigm of non-state actors, traditional teaching techniques, and a millennial skill base. Furthermore, accessing, measuring, and integrating assurance quality with intelligence community directive (ICD) critical competencies is not easy or simple. This is further complicated by the current workforce, the Millennial Generation. This a generation that approaches learning and employment with decidedly different values than any previous generation and may not bring the critical thinking skill set that an older generation values to their jobs.

In the twenty-first century, our culture has had profound economic, demographic, social, and intelligence upheavals, which has impacted every aspect of society to include the new generation of students and analysts. What cuts across disciplines is the powerful revolution of the information age. Because of these transformations, most institutions have been forced to restructure to meet an ever changing environment. The education system began this journey with the standards of learning (SOL) in the late twentieth century and in most institutions of higher learning, online classes, smart classrooms, and flipped classroom models have had to be adopted, adapted, and addressed to meet the technology changes
and learners who came of age with smartphones and the Internet. Just like the education community had to realign, the intelligence community galvanized after the cognitive dissonance of 9/11, resulting in first, a values shift, and then ideology development with the Director of National Intelligence (DNI) and the skill development outlined in ICD 610. By clearly identifying a benchmark of the core competencies of an intelligence analyst’s skill set, the government has set the training standard for intelligence education professionals as well as contractors striving to provide the government with expert analysts.

But a model for change requires behavioral change. Sociocultural behavioral learning theories, skill development, training of staff or students, and a platform for that skill development must be integrated for a student, employee, or organization to change. Meeting (and educating to) these skill needs of the core competencies are not that straightforward. It can be assumed that individuals with at least two years of college experience have been provided some experience in critical thinking and writing. By completion of a four-year degree program, most students have also been exposed to critical thinking methodologies. But do intelligence analysts formally apply critical thinking methodologies, except when management forces them to do so? Can employer-required coursework help IAs to develop more logical approaches to deal with problems in their IC jobs? Do courses need to be built and designed around IAs’ specific challenges and needs? And finally, have course developers or educators taken into account the documented differences of the millennial generation’s learning style to effectively reach and train them?

This paper examines the conclusions of researchers regarding the millennial generation and their unique challenges as students and IAs, and determines that a carefully crafted framework of coursework can be correlated and a curriculum built to the core competencies of ICD 610 while taking into account the unique variables of millennial intelligence analysts and the needs of the intelligence community. By examining the paradigm shifts of the intelligence community, the demographics of the millennial population, and current and future educational trends, this paper argues that teaching methods and competency coursework must be adapted and designed to meet millennials’ specific learning styles. Unless coursework is designed for the needs of this population, millennial IAs will not be able to build on their present skills or enhance their expertise. Government, education institutions, and contractors must examine how they will authentically assess IA learning to meet the ICD 610 skill set. By readapting intelligence curricula, building in clear assessment, flipping the classroom as well as mapping learning outcomes back to ICD 610, a concrete framework can be provided for delivering to the government excellent service through measurable skill training education.
The Challenges

The Intelligence Community

The intelligence community has had a long standing debate on whether intelligence analysis is a craft or profession, and this may have fueled the current educational challenges of preparing the millennial generation for careers as intelligence analysts. Also, there have been issues with the intelligence community both in training and framework, which had begun to be voiced by intelligence experts as early as the 1990s, with a movement toward intelligence reform after 9/11. Robert Johnston’s (2005) book, *Analytic Culture in the U.S Intelligence Community*, funded by the Central Intelligence Agency’s Center for the Study of Intelligence, offers conclusions that are not what many in the world of intelligence analysis would like to hear. His findings constitute not just a strong indictment of the way American intelligence performs analysis, but also, a guide for how to do better. Johnston finds no baseline standard analytic method. Instead, the most common practice is to conduct limited brainstorming on the basis of previous analysis, thus producing a bias toward confirming earlier views. The validating of data is questionable—for instance, the directorate of operations (DO) cleaning of spy reports does not permit testing of their validity—reinforcing the tendency to look for data that confirms, not refutes, prevailing hypotheses. The process is risk averse, with considerable managerial conservatism. There is much more emphasis on avoiding error than on imagining surprises. He also finds that the analytic process is driven by current intelligence, especially the CIA’s analytic product, the President’s Daily Brief (PDB), which, Johnston caricatured as “CNN plus secrets.” The intelligence community does more reporting than in-depth analysis because of the current structure of the community.

One of the solutions to fix the hole in the dyke was the Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA), which created, among other things, the Director of National Intelligence (DNI), and established goals of information sharing and analytic standards to include ICD 203 and ICD 610. These requirements have forced tradecraft to take a long, hard look at the current skill base needed for IAs, the gaps in the education process, the implications of training in a new and evolving tradecraft paradigm and recently and importantly, the implications of millennials as future IAs.

While ICD 203 and ICD 610 clearly spell out the hard and soft skills needed for a twenty-first century intelligence community and analyst, ICD 203 outlines the core principles, assessment criteria, and product valuation with the goal of providing “academic rigor and excellence and for personal integrity in analytic practice.” ICD 610 definitively captures the core competencies needed for the GS-15 intelligence community for civilian employees. These ground breaking initia-
tives have come at a time when U.S. experts and agencies, post 9/11, expressed the sentiment that analytical capabilities, and human and technical procedures, were in need of repair, replacement, and overhaul in order to be able to be responsive to the nature of twenty-first century threats. Additionally, the Intelligence Education Community has been in a debate about the role of training, education, and the foundation of social science methodology in bridging the gap from graduate to government analyst, which has been mapped in Landon-Murray and Coulthart (2016).

**Graduate to Government Analyst**

All of these issues come at a time when colleges and the workforce are composed heavily of the millennial generation, a generation that has significantly different values and engagement with education and work (Schweitzer 2010). This occurs alongside data that points to millennials’ weaknesses in a hard and soft skill base regardless of whether or not they have a four-year degree. For example, researchers at the Princeton-based Educational Testing Service (ETS) administered students a test called the Program for the International Assessment of Adult Competencies (PIAAC) (2017). The test was designed to measure the job skills of adults, aged 16–65, in 23 countries. When the results were analyzed by age group and nationality, data showed that millennials in the United States fall short when it comes to the skills employers want most: literacy, (including the ability to follow simple instructions), practical math, and “problem-solving in technology-rich environments” (Princeton University 2017). Also, in a 2015 Future Workforce Report, 60 percent of managers polled felt millennials lacked critical thinking and problem-solving skills, 50 percent felt they lacked attention to detail, and 44 percent stated they lacked leadership skills as well (The Economist 2017).

**Millennials, Higher Education, and the ICD Standards**

For college faculty, this generation can also be a challenging one to deal with and while there are many popular articles about the millennial attitude, the following summary from Neilson (2010) provides a solid overview. Millennials view higher education as an expensive but economically necessary consumer good, not a goal that is fueled by hard work and outstanding performance (Neilson 2010). They (or their parents) “purchase” it for the purpose of opening well-paying occupational doors on graduation, so they feel entitled to their degree for the cost of the credits (Neilson 2010).

Many of them were subjected to the rote memorization for SOLs and therefore are not prepared for college inquiry, meta-analysis, and synthesis of information. Critical thinking, the ability to synthesize information, and meta-analysis are not skill bases developed by multiple choice and memorization. Instead, high-impact learning practices include, but are not limited to: common learning experi-
ences, writing intensive courses, collaborative projects, and global learning (Stellar 2017, 220). These practices engage the student in real-world learning that mirrors what the external world of work will demand from them. As Dr. James Stellar (2017, 220) eloquently stated “… college students respond and grow because they are using both their hearts and their heads.” Learning theories demonstrates for the millennial learner engagement, both at work and school, relevancy, immediacy and collaboration. For example, the principles of Tokuhama-Espinosa’s (2014) work are shaped by the ideas that every student and brain is unique and molded by past experiences. This is particularly relevant for the millennial learner, whose past experiences have been shaped by the political, economic, and social challenges of the twenty-first century (Tokuhama-Espinosa 2014).

As the case studies in Tapscott (2010) showcase, millennials resent the amount of reading, research, problem solving, and writing that is assigned them and the standards that are held for their work. Because millennials are a generation marked by fragility, those whose grades slip feel their self-esteem threatened and may react with depression, anxiety, defensiveness, and even anger against professors. Additionally, they need trigger warnings and safe spaces if their belief and value systems are questioned (Tapscott 2010).

Also, because of their exposure to digital media and other cultural influences, they do not respond to courses that are conventionally delivered through online or seated classroom structures and have a traditional course format—lecture, read, respond, or test. A question that must be addressed by trainers and educators is how to get millennials to buy into course work that is mostly static and traditional (e.g., lecture) and may not take into account how the millennial generation learns or what they value.

Even though writing (along with soft skills) has been clearly documented as a challenge by the workforce and educators, the ICD mandates are mainly concerned with analytic standards which proscribe “the production and evaluation of analytic products” (Tapscott 2010). The Analytic Tradecraft Standards specifically address research, methodology, evaluation, assumptions, alternatives, implications, logic, accuracy, and visual layout but only briefly refer to actual writing as in standard 3: “Language and syntax should convey meaning unambiguously” (ICD 203, 4). All of the nine ICD 203 Standards specifically outline research and analysis, and most research and analysis courses provide basic coverage outlined in the requirements of the standards. It is also feasible to develop courses that will encompass analysis of competing hypothesis principles, risk assessments, probability, scenario analysis, etc. To further prepare our students, colleges as well as technical schools like the Intelligence and Security Academy, also offer technical writing classes along with research methods and analysis. But, even with these courses at their fingertips, graduates may not be competent to meet the basic IA skill set upon graduation. Moreover, most of the
coursework has not incorporated social behavioral learning theories and how millennials learn into course delivery.

**The Millennial Generation**

Even with the best course work and constructed classes all aligned to the ICD 203 Analytic Standards, educators and employers must take into account the current students and next generation of IAs if we are going to bridge the gap from graduate to competent employee. Understanding them is the first step, and that comes with the definition of who they are. Millennials are defined as people born from 1980 to 2004. There are over 73 million young adults currently aged 18–34. Some of them are now in elected and staff positions in Congress and fill essential positions with contractors, as well as jobs across all 17 intelligence agencies. Simply put, they are on the receiving end of the intelligence and are analyzing and driving its collection; they fill the seats in our classrooms (Weinbaum, Richard, and Jenny 2016).

Culturally, they have had major social, political, and economic issues on their radar screen. They have always lived with the threat of school shootings or violence, like the Ohio University shootings, Columbine, Sandy Hook, Virginia Tech, and the recent hate crimes demonstrated in Charlottesville, Virginia. They have witnessed the worst of corporate greed in the Enron fraud, watched the controversy of the Snowden leaks and the divisive presidential election and presidency. The current political circus has fortified their already shaky faith in the government and the political system. In 2014, only 20 percent of millennials polled trusted the federal government and only 22 percent were sure that Snowden jeopardized national security (Weinbaum, Richard, and Jenny 2016, 12–15). They are conflicted over their personal experience with SOL testing and the reality about student loan debt (an average of $45,000 per student) (Weinbaum, Richard, and Jenny 2016, 12–15). The challenge of finding gainful employment and the unclear certainty that an educational degree actually brings success has millennials questioning the educational system’s relevancy and approach to teaching them.

While we cannot change what has shaped them, we can be aware of what makes them tick. Some of the characteristics of millennials captured by researchers distinguish them as community-conscious, team-oriented, optimistic, sheltered, connected 24/7, and adopting technology as a way of life. What defines this generation apart from every previous generation that has come before it is that they have been raised in an environment of continuous exposure to digital media and this has shaped their perspective, use of that media, and how they evaluate what information they think of as timely or relevant. According to Oblinger (2003), to millennials computers are not considered a technology but are a way of life, and the Internet is preferable to the television; this technology affects what they per-
ceive as real. Doing is more important than knowing and learning more closely resembles Nintendo rather than logic (Oblinger 2003).

Additionally, a profile of the millennial college student can include, as described in Rue (2002), exposure to vast information but less depth of it; high levels of stress and anxiety; learning disabilities and fragility; lack of study skills; ambitious but unrealistic expectations; lack of engagement in class participation; and becoming easily bored. Based on numerous sociocultural learning theories that explain thinking, brain development and how it correlates to learning, we are what we have been exposed to; the millennial student’s brain is wired differently and their thinking patterns may have been changed through constant exposure to technology and media (Weinbaum, Richard, and Jenny 2016).

They are also a generation that has embraced tattoos and body piercings, and 69 percent believe marijuana should be legal (Weinbaum, Richard, and Jenny 2016, 30). Interestingly, this new generation has even influenced former Defense Secretary Ash Carter who announced a wide-ranging review of recruiting standards and practices to ensure they are not “unnecessarily restrictive.” The possible changes, outlined in a fact sheet distributed by the military, include a review of policies governing past marijuana use, tattoos, single parenthood, and physical fitness standards (Reyes 2016).

**Millennials and Media and Skills**

As we know, mobile phones are the most important technological device in the lives of millennials. Pew researchers suggest that millennials treat their phone multitasking like body parts, for better or worse (Rainie and Zickuhr 2015). More than 8 in 10 millennials polled said they sleep with a cell phone glowing by the bed (Rainie and Zickuhr 2015). Because of this adaptation to technology, “They prefer quick responses to questions, have a sense of immediacy, and are impatient with the slow pace or organizations that are less than cutting edge in their usage of technology” (Rainie and Zickuhr 2015, 4). On a positive note, they want to share and discuss information and have an innate openness to change. These are significant factors for new training and educational course design because their attitude is not conducive to traditional lecture presentation of material. For college course development, initial buy-in and a smooth onboarding is critical for millennials. So, discussion of assessments, objectives, and value of learning tools can provide students with a shared understanding and possibly some agreement about skill-based validity and importance of course objectives.

The implications for faculty are to shift from thinking that their students are not interested, or worse yet, bored, to utilizing teaching approaches that will engage the millennial learner while building on the neuroscience models of learning. Collaborative research activities take into account the Community of Practice,
that learning is social and that it is a skill that can be acquired. The Kolb Model of classroom activities builds on millennials’ desire for interconnection and immediacy (Svinicki 1987, 141–146). First, learning is central to human identity and is a social motivation, which is why student learning can be facilitated by group work and team teaching. Self-directed research projects or activities may provide buy-in that millennials value and take in the first ideas of Community of Practice: what do they value? Allowing them to scaffold research activities individually as well as with a team allows each student to develop expert knowledge in a specific area. Allowing each team to teach by presenting their material to the class, as well as designing an assessment activity for their classmates, may help them develop and become aware of appropriate learning, studying and college behavior and hard and soft professional skills. This directly correlates to their marketability and skills they will need as employees.

Experiential learning activities (Kolb et al. 2001) provide excellent foundational activities for developing and facilitating learning. Also, the activities support and are conducive to the millennial learner who needs a hands-on and interactive approach instead of the traditional auditory lecture and retrieval testing (Kolb et al. 2001). Activities and assignments that demonstrate and encompass concrete experience (e.g., research and group work), reflective observation (e.g., writing), abstract conceptualization (e.g., artistic project), and active experimentation (e.g., team teaching) can provide the multiplatform experience that millennials need to be engaged. According to the National Training Laboratories report, students’ attention average from lecture is 5 percent, from reading is 10 percent, from group discussion is 50 percent, then reaches 75 percent by doing, and 90 percent when a student experiments in a teaching role (Rivera 2016).

Additionally, these projects attempt to make the information “stick” by requiring students to solve and understand a problem, develop foundational knowledge through research and presentation of materials, elaborate by expressing ideas and concepts in their own words and make connections about what they know and how it relates to prior knowledge or experiences. As stated by Brown, Roedriger, and McDaniel (2014), “People who learn to extract key ideas from new material and organize [it] into a mental model and connect that model to prior knowledge show an advantage in learning complex mastery.” Ultimately, this flips the classroom and makes the student the actor instead of the receiver of information and builds on the millennials’ need for connectivity, authentic learning, and diversity of learning experiences.

**Intelligence Analysis and Learning**

Undoubtedly, millennials can be viewed as a challenge and flipping the classroom is not an easy feat. Certainly, higher education cannot do away with lecture and reading because the millennial generation simply does not like it
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or was not exposed to it, and this would have horrifying implications in the workforce, let alone the intelligence community that relies on intelligence analysts who must synthesize complex information. For example, analysts might need to consider social, military, economic, political, governmental, scientific, and technical issues surrounding an event or location. Additional challenges for an IA include training for avoiding analytical pitfalls like group think, risk aversion, preconceptions, etc.

Intelligence analysis illuminates information into a value added product and often deals with ambiguous situations that combine qualitative and quantitative research skills. Heuer (1991) details these points, as well as how human minds are not wired to cope effectively with both inherent and induced uncertainty. In addition, increased knowledge of our inherent biases tends to be of little assistance to the analyst, but tools and techniques that apply higher levels of critical thinking can substantially improve analysis on complex problems. In essence, one’s perceptions are morphed by a variety of factors that are completely out of the control of the analyst. Heuer (1991) sees mental models as potentially good and bad for the analyst. On the positive side, they tend to simplify information for the sake of comprehension, but they also obscure genuine clarity of interpretation. Therefore, since all people observe the same information with inherent and different biases, Heuer believes an effective analysis system needs a few safeguards. It should encourage products that clearly show the assumptions and chains of inferences, and it should emphasize procedures that expose alternative points of view, an idea that has been incorporated into ICD 203. What is required of analysts is “a commitment to challenge, refine, and challenge again their own working mental models” (Heuer 1991). But how do we challenge millennials, improve their analytic capabilities and ability to synthesize information when they do not read?

Millennials and Learning

If you Google: “Do millennials read?,” many articles from the Huffington Post to CBS news will state that millennials read more than any previous generation. Good news? Not quite. What millennials call reading, another generation might refer to as scanning. Based on information from Millennial Marketing, this is what some millennials had to say about books and reading:

Even if I had the money to buy every textbook I ever needed in college, most of them would have collected dust on my shelves all semester ... part of my complete disinterest in textbooks comes from the fact that the second a book is published today, it is pretty much obsolete ... Furthermore, this online information is free or if it’s not free, I’ll go look on another site until I find it for free.

In May of 2009, I graduated from The University of North Carolina
at Chapel Hill, a school consistently ranked as one of the best public universities in the country, and never checked out a single book.

Whether it is online or print, millennials do still read, but they read differently. Because they are reading for information, they are good scanners. In his book, Tapscott (2010) describes Joe O’Shea, a 22-year old student leader from Florida State who was on his way to study at Oxford; O’Shea had this to say about reading books:

I don’t read books per se, I go to Google and I can absorb relevant information quickly. Some of this comes from books but sitting down and going through a book from cover to cover doesn’t make sense. It’s not a good use of my time as I can get all the information I need faster through the Web. You need to know how to do it—to be a skilled hunter.

Earlier in his book, Tapscott (2010) spends several pages describing how and why millennials developed such scanning skills and explains how this ability may provide them with the broader frame of reference needed to be more sophisticated readers:

The Net Gen brain may be able to execute certain perceptual tasks more rapidly, and may maintain more items in working memory. In order to deal with all that incoming information, you have to be a great scanner. Digital immersion has given the Net Generation the visual skills that make them superior scanners. They’ve learned to develop the filters they need to sort out what’s important from what’s not.

Millennials’ habit of scanning, and of reading with purpose, may be good news for the intelligence community because it is a skill that can be utilized for scanning the huge amount of open source intelligence (OSINT) since key words, Twitter trending topics and other tools provide gateways into relevant content. Millennials have never experienced a day without Twitter, the Internet, Instagram, Snapchat, or Pinterest. They conduct research by going online and linking to source documentation and they monitor their every activity with Fitbit and Apple Watch. When they enter the intelligence workspace, they are radically underwhelmed by available tools, techniques, and processes. For example, newsworthy events are often posted, discussed, and dissected on Twitter before they are even detected in more traditional ways as is exemplified by the American presidential communication of tweets as opposed to press briefings. Millennials communicate and comfortably receive information this way. Yet, course material and training are, for the most part, still delivered in conventional formats.
A New Generation of Analysts and Intelligence Analysis

The next generation of analysts has much more experience with information technology and is much more comfortable than its seniors with information technologies, networked environments, and parallel processing of large amounts of information. Based on their use of social media platforms, millennials access data, share hypotheses, create “problem-centric” networks, and communicate in parallel with their friends in ways that will shape how analysis will be done in the future. Many experts feel the intelligence community will not attract, or will soon lose, these young people if it does not accommodate to how they think and learn (Glass 2017, Nevid 2011).

Therefore, how do we develop their classroom experience to take into account that the current and next generation of analysts are fast, not slow; do parallel processing, not serial processing; give pride of place to graphics, not text; do random accessing, not step-by-step processing; are connected, not stand-alone; are active, not passive; mix work and play; are impatient for results and very definitely see technology as a friend, not a foe? These characteristics can be the greatest future assets or considerable liabilities, depending on how these resources can be channeled.

Research results from a sampling of millennial students polled by Cynthia Phillips (2014) provided numerous proposals for engaging the millennial learner. Some of these suggestions included that professors do not read from PowerPoints because millennial students zoned out before the second slide. The results encouraged professors to do problems in class based on the reading material as well as explain how textbook and lecture material can be applied to the real world. Lectures longer than 15 minutes or that do not have other types of activities will not hold their attention or allow them to process and synthesize the information they are learning.

So, how do we teach them? Part of the solution might be multidisciplinary instruction that calls on millennials' strengths of collaboration and desire to work in teams for problem solving especially, their value of graphics and ability to find information online and create what they find into something new. This is also what is valued in an intelligence analyst. The Center for Educational Research and Teaching Innovation at the Missouri University of Science and Technology has an excellent resource for teaching millennials. It identifies the student issue, possible causes and teaching recommendations. For example, they identify the millennial issue of giving up too easily and lacking coping skills for failure, resulting from growing up by getting rewards too frequently. Have you heard of the participation trophy? They are also prone to quit when rewards disappear because they have been raised on extrinsic reinforcement. This gives them an unprepared mindset for success in college. Professors can mitigate this by providing specific
praise for what needs reinforcement in the classroom like “persevering, trying again after failure, working hard ... give low stakes assessment throughout the course so students know where they stand. Help students understand how they learn” (The Center for Educational Research and Teaching Innovation 2014, see also Fowler et al. 2015, McCune 2017). This can seem completely mind blowing to a generation of professors who did not come of age (but might be raising) millennials.

Conclusion

Teachers, trainers, intelligence analyst managers, and program heads must begin to think differently about the millennial student and the future intelligence analyst if we want to prepare these students for educational and job success. Paradigm shifts have already occurred in the intelligence community and with the SOLs. It can be argued that the intelligence community overhaul post 9/11 was reactive but absolutely necessary as we moved into a world that was now preoccupied by non-state actors as opposed to the nation states of the Cold War. Higher education has had to adapt and adopt to information technology and learning platforms and there is speculation that by 2025 most college classes will be taught online. Like the Model T that seemed to usher in the modern age of industrialization, there are dramatic and constant changes that cause our world to shift. The millennial generation grew up without encountering a library's card catalogue, may have been in diapers on 9/11, and are the most globally interconnected students because of technology and social media. Higher education, if we want to prepare these students for careers as intelligence analysts, must take into account who the millennial generation is and what skill base and cognitive needs and challenges they bring to the table.

What is clear is that there are opportunities to refashion methods, enhance critical thinking, and reconfigure organizations for doing intelligence analysis and this can be applied to the development and shaping of coursework that will build upon the millennial generation's inherent strengths while providing a solid foundation in critical thinking. This does not mean we have to do away with lectures and reading, soft skill development, and honing excellent writing skills because millennials simply don't like doing it. What it does mean is that if intelligence education training is going to be effective and turn out competent analysts, it has to engage the millennial brain. How the intelligence education community resolves how course work is taught has to be overhauled just like the intelligence community had to be overhauled post 9/11. Just like we cannot approach the intelligence issues of the twenty-first century with tools from the Cold War, we cannot approach teaching millennials from a 1950s classroom.
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